U.S. Patent Application No. 10/535,486 Attorney Docket No. 10191/3910

Reply to Office Action of February 17, 2010

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

1-7. (Canceled).

8. (Currently Amended) A <u>computer implemented</u> device for connecting subnets in a vehicle, comprising:

a gateway unit configured to connect at least two subsystems, wherein the gateway unit is made of at least one modular software gateway, which routes messages between only two subnets in the vehicle; and

hardware implemented bus-specific receiving objects configured to one of (1) relay incoming messages to selected software gateways, and (2) monitor access to a particular bus, for each subnet, and wherein the bus-specific receiving objects are provided for each subnet, the messages are kept in a wait loop before being relayed, and each receiving object is individual for each subnet.

- 9. (Previously Presented) The device as recited in claim 8, wherein at least three subnets are connected to the gateway unit, the gateway unit including a plurality of modular software gateways, each of the modular software gateways routing messages between only two subsystems.
- 10. (Canceled).
- 11. (Previously Presented) The device as recited in claim 8, wherein the receiving objects include routing tables in which a treatment of incoming messages is configured.
- 12. (Canceled).
- 13. (Previously Presented) The device as recited in claim 8, wherein the modular software gateway is configured to buffer incoming messages and perform protocol-specific adaptations.

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14. (Currently Amended) A <u>computer implemented</u> device for connecting subnets in a vehicle, comprising:

a gateway unit configured to connect at least two subsystems, the gateway unit being integrated in a control unit having an application system and being provided in one layer of a communication system of the vehicle, the gateway unit including at least one modular logical gateway and <u>hardware implemented</u> bus-specific receiving objects configured to one of (1) relay incoming messages to selected software gateways, and (2) monitor access to a particular bus, for each subnet, and wherein

the <u>hardware implemented</u> bus-specific receiving objects are provided for each subnet,

the logical gateway connect[[ing]] only the at least two subsystems in the vehicle[[,]]; the subsystems being are subnets;

wherein the messages are kept in a wait loop before being relayed, and each receiving object is individual for each subnet.

15. (Previously Presented) The device as recited in claim 14, wherein at least three subnets are connected to the gateway unit, the gateway unit including a plurality of modular software gateways, each of the modular software gateways routing messages between only two subsystems.

16. (Canceled).

- 17. (Previously Presented) The device as recited in claim 14, wherein the receiving objects include routing tables in which a treatment of incoming messages is configured.
- 18. (Canceled).
- 19. (Previously Presented) The device as recited in claim 14, wherein the modular software gateway is configured to buffer incoming messages and perform protocol-specific adaptations.

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20. (Currently Amended) The device as recited in claim 14, wherein the <u>hardware</u> <u>implemented</u> bus-specific receiving objects are configured to relay incoming messages to selected software gateways, the <u>hardware implemented</u> bus-specific receiving objects being provided for each subnet,

wherein at least three subnets are connected to the gateway unit, the gateway unit including a plurality of modular software gateways, each of the modular software gateways routing messages between only two subsystems.

wherein the receiving objects include routing tables in which a treatment of incoming messages is configured, and

wherein the modular software gateway is configured to buffer incoming messages and perform protocol-specific adaptations.

21. (Currently Amended) The device as recited in claim 14, wherein the <u>hardware</u> <u>implemented</u> bus-specific receiving objects are configured to monitor access to a particular bus, for each subnet,

wherein at least three subnets are connected to the gateway unit, the gateway unit including a plurality of modular software gateways, each of the modular software gateways routing messages between only two subsystems,

wherein the receiving objects include routing tables in which a treatment of incoming messages is configured, and

wherein the modular software gateway is configured to buffer incoming messages and perform protocol-specific adaptations.

22. (Currently Amended) The device as recited in claim 8, wherein the <u>hardware</u> <u>implemented</u> bus-specific receiving objects are configured to relay incoming messages to selected software gateways, the <u>hardware implemented</u> bus-specific receiving objects being provided for each subnet,

wherein at least three subnets are connected to the gateway unit, the gateway unit including a plurality of modular software gateways, each of the modular software gateways routing messages between only two subsystems,

wherein the receiving objects include routing tables in which a treatment of incoming messages is configured, and

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wherein the modular software gateway is configured to buffer incoming messages and perform protocol-specific adaptations.

23. (Currently Amended) The device as recited in claim 8, wherein the <u>hardware</u> <u>implemented</u> bus-specific receiving objects are configured to monitor access to a particular bus, for each subnet,

wherein at least three subnets are connected to the gateway unit, the gateway unit including a plurality of modular software gateways, each of the modular software gateways routing messages between only two subsystems,

wherein the receiving objects include routing tables in which a treatment of incoming messages is configured, and

wherein the modular software gateway is configured to buffer incoming messages and perform protocol-specific adaptations.

24. (Currently Amended) The device as recited in claim 11, wherein the <u>at least one</u> modular software gateway expands gateways without changing the at least one modular software and the routing tables.